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10/803,953	03/19/2004	Tomohiko Yagyu	Y0647.0148	7165

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NEW YORK, NY 10036-2714

EXAMINER
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ABDIN, SHAHEDA A

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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01/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

AK

**Office Action Summary**

Application No.

10/803,953

Applicant(s)

YAGYU, TOMOHIKO

Examiner

Shaheda A. Abdin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Response to Amendment

1. The amendment filed on 12/20/2007 has been entered and considered by examiner.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al.(US Pub No: 20050078659 A1).

As shown in figure 1, 2 and 3 smith et al. discloses an optical network.

(1) Regarding claim 1:

Smith discloses an optical network (2) which is formed by a plurality of optical network transmission apparatuses (source node, 10a to destination node, 10b) and a plurality of transmission lines (6, optical links) that connect the optical network transmission apparatuses ([0024], Fig.1), characterized in that

each optical network transmission apparatus (in Fig. 3) comprises:  
advertisement means (30, label availability table) for autonomously  
advertising a usable wavelength in a transmission line connected to the  
apparatus ([0032], [0030], and Fig. 3).

collection means (32, label list) autonomously usable wavelength in a  
transmission line collecting that is advertised by another apparatus (see the  
illustration in Fig. 1 and Fig. 3, also see [0024], [0031-0032]), wherein the  
plurality of optical network transmission apparatuses (i.e. (10a) - (10b) cooperate  
together to form a usable path (i.e. available lambda or wavelength) determined  
from shared information (collected information, such as wavelength availability)  
that has been advertised and/or collected (i.e. collected from label list) by the  
optical network transmission apparatus of the network ([0031-0032] and [0036-  
0038]).

(2) Regarding claim 2:

Smith teaches said advertisement means (30) comprises notification  
means (selected label identifier) for notifying another apparatus adjacent  
apparatus of the usable wavelength the transmission line connected to the  
apparatus (service between source node SN and destination node DN) and  
usable wavelength in the transmission line that is collected by said collection  
means (30) ([0032], ([0036-0038]) Fig. 3).

(3) Regarding claim 3:

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Smith teaches the optical network transmission apparatus (source node, 10a to destination node, 10b) further comprises route calculation means (e.g. cross- connect) for calculating a route of an optical path (i.e. end to end path ) on the basis of the usable wavelength in the transmission line connected to the apparatus and the usable wavelength in the transmission that is collected by said collection means (i.e. 32) ([0032], [0034-0035], [0037], lines 7-19, [0038] and Fig. 3).

(4) Regarding claim 4:

Smith teaches the optical network transmission apparatus comprises wavelength management means (i.e. controller 26) for managing the usable wavelength in the transmission line connected the apparatus ([0012], [0026], and Fig. 2).

wavelength update means (label availability table 28) for updating usable wavelength managed by said usable wavelength management means when an optical path is set in transmission line connected the apparatus ([0026], [0012], and Fig. 2).

(5) Regarding claim 5:

Smith teaches an optical network transmission apparatus (source node and destination node) in which the apparatus and other adjacent apparatuses (4a, XC) are connected by transmission lines (6), characterized by comprising:

advertisement means (30, label availability table, Fig. 3) for autonomously advertising usable wavelengths in the transmission lines connected to the apparatus ([0024], [0032], [0030], and Fig. 3);

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collection means (32,label list) for autonomously collecting usable wavelengths that are advertised by said other apparatuses ([0024], [0031], [0032], fig. 1 and Fig. 3), wherein the optical network transmission apparatus (i.e. SN10a - DN 10b) and the other adjacent apparatuses (e.g. XC(1)'s) cooperate together to form a usable path (i.e. available lambda) determined from shared information that has been advertised and/ or collected(i.e. collected from label list) by the optical network transmission apparatus and other adjacent apparatuses of the network ([0031-0032] and [0036-0038] ).

(6) Regarding claim 6:

Smith teaches said advertisement means comprises notification means for notifying said other apparatuses of the usable wavelengths in the transmission lines connected to the apparatus (service between source node SN and destination node DN) and the usable wavelengths in the transmission lines that are collected by said collection means ([0032], Fig. 3).

(7) Regarding claim 7:

Smith teaches route calculation means (label list 32 and compares it with its associated label availability table 28a (step 104)) for calculating a route of an optical path on the basis of the usable wavelengths the transmission lines connected to the apparatus and the usable wavelengths in the transmission lines that are collected by said collection means ([0032-0035]), [0037], lines 7-19, and Fig. 3).

(8) Regarding claim 8:

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Smith teaches wavelength management means (cross-connect with controller 26) for managing the usable wavelength in the transmission lines connected to the apparatus;

wavelength update means (28) for updating the usable wavelengths managed by said usable wavelength management means when an optical path is set in the transmission lines connected the apparatus ([0012], [0026], and Fig. 2).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US Pub No: 20050078659 A1) in view of Tsushima et al. (US Patent No: 6970614 B2).

(9) Regarding claims 9 and 13:

As shown in fig. 1, 2 and 3 Smith et al. discloses a method and system comprising: a distributed routing control method in an optical network which is formed by a plurality of optical network transmission apparatuses and a plurality of transmission lines that connect the optical network transmission apparatuses,

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characterized by comprising the step of causing each optical network transmission apparatus to autonomously advertise a usable wavelength in a transmission line connected to the apparatus ([0032], 0035), [0037], lines 7-19, and fig. 3) and autonomously collect transmission line that usable wavelength in a is advertised by another apparatus ([0032], [0030], and Fig. 3),

wherein the plurality of optical network transmission apparatuses (i.e. (10a) - (10b) cooperate together to form a usable path (i.e. available lambda or wavelength) determined from shared information (collected information, such as wavelength availability) that has been advertised and/or collected (i.e. collected from label list) by the optical network transmission apparatus of the network ([0031-0032] and [0036-0038] ).

Note that Smith does not teach a machine-readable recording medium which records a program distributed routing control method in an optical network.

However, Tsushima et al. in the same field of endeavor, discloses a machine-readable recording medium (190, control system includes a memory MEM 1910) which records a program distributed routing control method in an optical network (column 6, lines 58-67, column 7, and Fig. 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a machine-readable recording medium (190, control system includes a memory MEM 1910) which records a program distributed routing control method in an optical network as taught by Tsushima et al., in to the net working system of Smith et al et al., so that the optical network can be configured to locate a plurality of optical switching equipments and optical



transmission routes so as to allow the optical signals processed in the equipment for adding the optical signals to pass through the different optical transmission routes and equipments respectively. In this configuration the optical signal would be allowed to pass through the equipment is processed in the single configuration portion of the equipment. In combination these features result in an optical transmitter with high reliability that may be fabricated with relatively compact and low cost (Tsushima, column 2, lines 35-40) .

(10) Regarding claim 10 and 14:

Smith et al., further comprises wherein the advertisement step comprises the step of notifying another apparatus adjacent to the apparatus of the usable wavelength in the transmission line connected to the apparatus and the collected usable wavelength in the transmission line ([0024], [0032], [0030], and Fig. 3).

(11) Regarding claim 11:

Smith et al., further comprising the step of calculating a route of an optical path on the basis of the usable wavelength in the transmission line connected to the apparatus and the collected usable wavelength the transmission line ([0032], [0035]), [0037], lines 7-19, and Fig. 3).

(12) Regarding claim 12:

Smith et al., further comprising: the step of setting an optical path along a route obtained by route calculation([0032]);

the step of updating (reduced label list 34) the usable wavelength in the transmission line connected to the apparatus ([0033], Fig. 3).

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(15) Regarding claim 15:

Note that Tsushima teaches the program and Smith teaches a process calculating a route of an optical path (i.e.  $\lambda$ ) on the basis of the usable wavelength the transmission line connected to the apparatus and the collected usable wavelength the transmission line ([0032], 0035), [0037], lines 7-19, and Fig. 3).

(16) Regarding claim 16:

Note that Tsushima teaches the program and Smith, teaches an optical path along a route obtained by route calculation, and process of updating the usable wavelength in the transmission line connected to the apparatus ([0032], [0034-0035], [0037], lines 7-19, [0038] and Fig. 3). Thus the references of Smith and Tsushima teach the claim limitations.

### ***Response to Arguments***

6. Applicants arguments filed on 11/07/2007 have been fully considered but they are not persuasive.

In response to applicant's Argument that the references fail to show certain feature of applicant's invention, it is noted that the features upon which applicant (i.e., **the source node knows beforehand, based on information it has received by collection means, that the path it chooses will not fail. In the claimed system a usable path is determined from the share meshed**

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**information that has been advertised/collected by the nodes of the system.**

**Because each node knows the capabilities of the other nodes, no path failure will occur based on apparatus limitations).** However, certain limitations above are not recited in the claim (s). The claim does not recite “**no path failure will occur based on apparatus limitations**”. Thus, while this is unlike applicant’s disclosed device, it reads on broad claimed language.

Moreover, Smith reference does not clearly assured that when reduced label list is empty failure must be occurred rather when reduced level list become empty mapping failure message M’ launch with a newly selected label identifier toward the source node 10a and retracing the route followed by the request message R; an end-to-end label switched path set up between the source node and the destination node using the respective label corresponding to the newly selected label identifier [0037-0038].

### ***Conclusion***

### ***Inquiry***

9. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Chanh Nguyen, can be reached at (571) 272-7772.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

**Any response to this action should be mailed to:**

Commissioner of patents and trademarks

Washington, D.C. 20231

Or fax to:

**(703)872-9314 (for Technology Center 2600 only)**

Shaheda Abdin

01/22/2007

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